7.0 ANALYSIS OF LONG-TERM EFFECTS

7.1 CUMULATIVE IMPACTS

The *California Environmental Quality Act (CEQA) Guidelines* (Section 15355) define a cumulative impact as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." The *CEQA Guidelines* [Section 15130(a)(1)] further state that "an Environmental Impact Report (EIR) should not discuss impacts which do not result in part from the project."

Section 15130(a) of the *CEQA Guidelines* provides that "[A]n EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable..." Cumulatively considerable, as defined in Section 15065(a)(3), "means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

An adequate discussion of significant cumulative impacts requires either: (1) "a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or (2) "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact."

The *CEQA Guidelines recognize* that cumulative impacts may require mitigation, such as new rules and regulations that go beyond project-by-project measures. An EIR may also determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The Lead Agency must identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable (*CEQA Guidelines* Section 15130(a)(3)).

7.1.1 Cumulative Projects

This cumulative impact analysis utilizes the General Plan growth projections method, which assumes build-out of Carlsbad General. In addition, the cumulative effects discussion will be based on a list of related projects within the vicinity of Master Plan area (Table 7-1). The list of projects is based on applications on file with the City of Carlsbad at time of release of the Notice of Preparation (NOP).

7.1.2 Geographic Scope for Cumulative Impact Analysis

The geographic scope of the cumulative impact analysis varies depending upon the environmental issue being analyzed. For the purposes of this EIR, the city limits of Carlsbad define the geographic scope for the analysis of cumulative land use and planning, public services and utilities, and visual aesthetic grading. The City's General Plan, the Growth Management Plan, and development policies address land use, public services and utilities, and aesthetic and grading issues. The City limits also define the geographic scope for cultural resources and hazardous materials and hazards since the proposed project does not require any grading or development that would contribute to cumulative cultural resources or hazardous materials and hazards impacts outside of the City limits.

Table 7-1. Cumulative Projects List

Project		Project Description
1	El Corazon Phase 1&2	Phase 1D: Construction of a hotel site in an urban compact form due to its location near the Village Commercial district. Phase 1E: Construction of village commercial containing specialty retail that is complementary and compatible to adjacent park, community, and cultural and surrounding land uses.
2	Tri-City Medical Center	Construction of a 60,000 square foot medical office building located on Vista Way, north of the SR-78 and east of College Boulevard
3	Plaza Camino Real Westfield Shopping Center Revitalization Project	An existing Super Regional Shopping Center. It is located in the northwest portion of the City of Carlsbad on approximately 97 acres at the City's northern entrance along El Camino Real, and currently has 1,151,092 square feet (sf) of gross leasable area (GLA). The Project involves the demolition, reconfiguration, and/or reconstruction of approximately 179,631 GLA sf of existing square footage, and the development of up to approximately net 35,417 GLA sf, for a total of approximately 1,186,509 GLA sf.
4	Robertson Ranch	Approximately 398 acres consisting of a mixture of residential, commercial, educational, recreational, and open space land uses.
5	Palomar Commons	Proposes a building area of 185,244 square feet. A Lowe's home improvement store will account for 153,974 square feet, while the remaining area is proposed as retail stores and restaurants. The project is located on the intersection of El Camino Real and Palomar Airport Road.
6	Dos Colinas	Construct a 305-unit professional care facility on approximately 46 acres. The development includes 58 cottages and 166 units for independent living. At a future date, 20 of the living units will be determined for affordable housing.
7	Holly Springs/Catarini Ranch	Construct 43 single-family homes on approximately 119 acres. Approximately 59 acres will be open space with an additional 20-acre open space remainder parcel.
8	Sage Creek High School Project	Construction of a 2,400 student high school in two phases. The project is located on the northeast corner of Cannon Road and College Boulevard.
9	La Costa Town Square	Development consisting of a 284,000 square foot shopping center, 198 dwelling units, and 55,000 square feet of office.

The City limits also define the geographic scope for biological resources as the City's Habitat Management Plan (HMP) provides guidelines for the regulation and management of biological resources within the City limits of Carlsbad.

The North County sub-regional area is used as the geographic scope for the analysis of geology/soils due to the location of existing faults in the region.

The San Diego Air Basin (SDAB) is used as the geographic scope for the analysis of cumulative air quality and greenhouse gas emissions impacts due to the existence of Regional Air Quality Strategy (RAQS) Plans and requirements set forth by the San Diego Air Pollution Control District (SDAPCD), which apply to all cumulative projects within the SDAB.

The Buena Vista Creek and Buena Vista Lagoon watershed defines the geographic scope related to hydrology and water quality as cumulative development in this watershed could impact the drainage and water quality of the watershed and downstream waterbodies.

Figure 5.14-1 in Section 5.14 Transportation and Traffic of this EIR identifies the roadways that were analyzed in the Traffic Impact Analysis (Appendix P of this EIR).

To determine if cumulative off-site noise level increases associated with the development of the project and other planned or permitted projects in the vicinity will create noise impacts, the noise levels for the near-term project Buildout and other planned and permitted projects were compared with the existing conditions. Utilizing the project's traffic assessment (Urban Systems Associates 2012) noise contours were developed for the following traffic scenarios:

- Existing: Current day noise conditions without construction of the project.
- Existing plus Cumulative Projects plus Project: Current day noise conditions plus the completion of the project and the completion of other permitted planned projects or approved ambient growth factors.
- Existing vs. Existing plus Cumulative plus Project: Comparison of the existing noise levels and the related noise level increases from the combination of the project and all other planned or permitted projects in the vicinity of the site.

7.1.3 Aesthetics

The cumulative aesthetics analysis considers cumulative projects that are recently constructed or proposed in the vicinity of the project and within the same project viewshed. The areas surrounding the site to the north, east, and south are developed, and to the west of the site land is dedicated open space. There are no cumulative projects identified in Table 7-1 located within the project viewshed that include visual resources and aesthetic impacts, and no additional major developments are contemplated in the General Plan for this area. Although a significant project level aesthetic impact has been identified associated with the change in the view from the southern façade of the Marron Adobe, there are no cumulative projects within the same view shed as the project area that, if constructed, would contribute to a cumulative aesthetic impact. Projects within the City of Carlsbad require design review to ensure consistence with applicable plans, policies, and ordinances. All new development projects would be required to adhere to the City of Carlsbad's goals, which would minimize aesthetic impacts; therefore, no significant cumulative aesthetic impact has been identified.

7.1.4 Agriculture and Forestry Resources

Agriculture

As identified in Section 5.2, Agriculture and Forestry Resources, portions of the project site contain "Unique Farmland" and "Farmland of Statewide Importance." However, the project site is not currently being used for agricultural production. The disturbed portions of the site have been historically used for mining operations and the native topsoils have been removed. The project site is not currently zoned for agriculture and is not under a Williamson Act contract.

Planning Systems prepared a Land Evaluation and Site Assessment (LESA) analysis in March 2012 for the proposed project site (Appendix E). A summary of the results is provided in Section 5.2. The analysis concluded that the project site score is below the threshold level of significance with respect to containing significant agricultural resources primarily because much of the topsoil of the project site has been scrapped as a result of the historical quarry activities and reclamation. As a result, the project site is determined to not possess prime agricultural farmland. Therefore, the proposed project would not result in

a significant impact associated with the conversion of agricultural lands, and would therefore, not contribute to a cumulative loss of agricultural lands. No significant cumulative agriculture impact has been identified.

7.1.5 Air Quality

The SDAB is in transitional-attainment status of federal standards for ozone (O_3). The Basin is either in attainment or unclassified for federal standards of carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), particulate matter less than 10 microns (PM_{10}), and lead (Pb). The SDAB is also in attainment of state air quality standards for all pollutants with the exception of O_3 and PM_{10}. Development forecasted for the region will generate increased emission levels from transportation and stationary sources.

Potential cumulative air quality impacts will be partially reduced through implementation and achievement of emission levels identified in the RAQS and General Plan air quality elements of local jurisdictions. Based on the expected reductions in emissions due to implementation of these plans, vehicle emissions are anticipated to gradually decrease dependent on the type of pollutant.

From a construction perspective, there is a potential to create a cumulative impact if the propose project is both simultaneously constructed alongside an adjacent construction project or a project where project emission contours overlap. These scenarios would cumulatively cause emissions to exceed SDAPCD emission thresholds. The project traffic study identifies nine projects within the general area around the project site:

1) El Corazon Specific Plan (7,960 average daily traffic [ADT])
2) Tri-City Medical Office Building (3,000 ADT)
3) Plaza Camino Real Westfield Shopping Center Revitalization Project (5,186 ADT from vacant leasable space; 1240 ADT from new space)
4) Sage Creek High School (1,950 ADT)
5) Robertson Ranch (17,800 ADT)
6) Holly Springs Catarini (2,250 ADT)
7) Dos Colinas (1,340 ADT)
8) Palomar Commons (12,370 ADT)
9) La Costa Town Square (25,516 ADT)

The SCEEN3 dispersion model estimates that worst-case emissions would be generated at 387 meters from the project center. None of the identified cumulative projects are within the proposed Quarry Creek project emission contour; however, worst-case contours are not known for nearby cumulative projects. It is estimated that the worst-case contour for any of the listed cumulative projects would not have emission contours exceeding 1,000 meters. Therefore, any project over 1,387 meters from the project would not cumulatively be expected to add or contribute to emissions generated from the proposed project. Given this, none of the identified projects are located within the 1,387-meter contour line and no cumulative construction impacts are expected.

Based on a review of the cumulative plus project traffic projections, the proposed project would not add vehicular trips or re-classify any intersections to a level of service (LOS) E or F. Therefore, no cumulative operational CO hot spot impacts are expected at area intersections. With regard to cumulative impacts associated with ozone precursors, provided a project is consistent with the land use designations in the local General Plan, it has been accounted for in the ozone attainment demonstration contained within the State Implementation Plan, and would not cause a cumulatively significant impact on the ambient air quality for ozone. Given this, combined with the conclusion that no operational impacts are expected, the project would also comply with the RAQS and the State Implementation Plan (SIP). No significant cumulative air quality impact has been identified.

7.1.6 Biological Resources

The increase in urbanization of currently vacant land will impact existing natural habitats and biological resources. The City's HMP anticipates future development within the City, and addresses biological impacts on a cumulative level by implementing a habitat plan that will ensure preservation of important biological resources and maintenance of habitat connectivity within the City and to other areas outside of the City such as the Buena Vista Creek and lagoon. Development within the City must comply with the provisions of the General Plan and HMP, providing substantial open space in the most biological sensitive areas to ensure the preservation of a habitat system that would ensure the continued viability and protection of sensitive biological resources.

With respect to the proposed project, the proposed project would result in direct impacts to/removal of 0.34 acres of southern riparian woodland, 0.06 acres of southern willow scrub, 0.02 acres of mule fat scrub, un-vegetated channel, 13.6 acres of Diegan coastal sage scrub, 1.1 acres of baccharis scrub, 0.2 acres of native grassland, 0.2 acres of coastal sage chaparral scrub, 0.1 acres of southern mixed chaparral, 24.6 acres of non-native grassland, and 6.3 acres of disturbed habitat, which are protected. The Carlsbad HMP requires a no net loss with regards to wetland and riparian vegetation communities. Mitigation Measures BIO-1 and BIO-2 require replacement/enhancement of the impacted vegetation communities. Additionally, the proposed project would result in permanent impacts to 0.21 acres of U.S. Army Corps of Engineers (USACE) jurisdictional areas consisting of un-vegetated channel/streambed and 0.47 acres of California Department of Fish and Game (CDFG) jurisdictional areas. The USACE and CDFG require no net loss of wetlands. Mitigation Measure BIO-3 requires replacement/enhancement of the impacted jurisdictional areas.

Implementation of Mitigation Measures BIO-1 through BIO-3 mitigates the proposed project's impacts and results in no net loss of wetland and riparian vegetation communities. Furthermore, the proposed project would expand the HMP Hardline, and the project is in compliance with the HMP. Therefore, the proposed project's contribution to a cumulative biological impact with regards to sensitive vegetation communities and jurisdictional areas would be considered less than significant, and the overall cumulative impact to biological resources is considered less than significant with compliance and continued implementation of the provisions of the HMP.

Sensitive Animals

The proposed project would result in direct removal of Diegan coastal sage scrub (Group C) habitat as identified in Table 5.4-3 (see Section 5.4 Biological Resources). Seven coastal California gnatcatcher pairs were observed in the area impacted. One of the pair of gnatcatchers in the southeastern corner of the project site has the potential to continue to use adjacent sage scrub. Additionally, impacts to non-native

grassland would impact foraging habitat for the one northern harrier and white-tailed kite, as well as habitat for two San Diego black-tailed jackrabbits.

Mitigation of impacts to sensitive animal species will be met through on-site preservation of habitats capable of supporting these species as outlined in Mitigation Measures BIO-1 through BIO-3. Potential impacts to sensitive avian species during breeding season will be mitigated to a level below significance through implementation of Mitigation Measure BIO-4.

Additionally, the proposed project includes the construction of a bridge across the riparian corridor to maintain wildlife movement along Buena Vista Creek at the western end of the widened riparian corridor. No significant impacts to this local wildlife corridor would result from implementation of the proposed project.

The regional linkage that traverses the southwestern portion of the project site is shown as Hardline Preserve in the HMP. The proposed project will expand this portion of the preserve by 9.5 acres resulting in a net improvement in regional connectivity for this portion of the HMP. The proposed project also includes enhancement of the existing Hardline Preserve at its narrowest point along the southern property boundary. The proposed project includes grading an approximate 300 foot distance of this "pinch point" and revegetating the slope with Diegan coastal sage scrub. The pinch point is then widened significantly along the western 500 feet by implementation of the project from 85 feet to approximately 300 feet in width, resulting in a net improvement in wildlife movement between the eastern open space parcel and the open space to the west. The proposed project as designed results in an overall increase in wildlife movement functions over the current HMP Hardline Preserve. This fact, together with project design features, consistency with the HMP, and required mitigation measures would ensure that the cumulative impact to biological resources would be mitigated to less than significant.

7.1.7 Cultural Resources

Cumulative development is expected to impact existing cultural resources in the region. The cumulative total of all of the related project development in the City of Carlsbad identified in Table 7-1 above creates the potential for additional impacts to historical, archaeological, and paleontological resources. The project site and vicinity is known to contain cultural and historic resources. The project's compliance with the mitigation measures identified in Section 5.5, Cultural Resources, of this EIR will ensure that the project-specific impact to significant cultural resources is mitigated to a level less than significant. On a broader scope, archaeological and cultural resources are protected through Section 15064.5 of the *CEQA Guidelines*, as well as other federal and state laws, and local ordinances, including the City's Cultural Resource Guidelines. Cumulative development within the region is subject to review under CEQA and compliance with federal, state, and local regulations protecting cultural resources. Impacts to cultural resources as a result of development in the region would be reduced to a level less than significant through implementation of mitigation measures on a project-by-project basis. Therefore, the proposed project would not result in cumulative impacts to cultural resources.

7.1.8 Geology and Soils

Cumulative development would result in an increase in population and development that would potentially be exposed to hazardous geological conditions. Geologic and soils conditions are typically site specific and can be addressed through appropriate engineering practices. Cumulative impacts with regards to geologic resources would be considered significant if the proposed project would be impacted by geologic hazards(s) and if the impact could combine with off-site geologic hazards to be cumulatively

considerable. However, there are no unique geological characteristics on the project site that would pose this type of hazard. Geologic and soils conditions on the project site will result in a significant, but mitigable geology/soils impact. The proposed project's incremental effects are not cumulatively considerable. Geologic conditions in the Southern California region will essentially be the same regardless of the amount of development and the cumulative geologic impact is considered less than significant. No significant cumulative impact to geology/soils will occur.

7.1.9 Greenhouse Gas Emissions

The proposed project would incrementally increase greenhouse gas emissions. However, the proposed project would minimize energy consumption, including transportation energy, water conservation and solid-waste reduction through the siting, orientation, and design of the residential units. Combining all regulatory measures such as the Pavley, Low Carbon Fuel Standards and both the EPA Energy Star compliance (or equivalent) standards and Cal Green standards as well as implementing neighborhood design features such as sidewalks, bike paths, transit and park-and-ride lot, the project would be expected to reduce carbon dioxide equivalent (CO_2e) by 3,507.73 metric tons compared to business as usual. A reduction of this size would reduce the projects emissions from business as usual by 31.5 percent which will meet and exceed the requirements of CEQA. This reduction would be consistent with the goals of Assembly Bill (AB) 32, which requires achievement by 2020 of a statewide greenhouse gas (GHG) emissions limit equivalent to 1990 emissions.

In addition, as discussed in detail in the Greenhouse Gas Study (Appendix K of this EIR), the proposed project would be consistent with all of the CAT strategies and the 2008 Attorney General Greenhouse Gas Reduction Measures that are applicable to the proposed project, as well as Office of Planning and Research (OPR) strategies. Mitigation Measures identified in Section 5.7 Greenhouse Gas Emissions of this EIR, as well as proposed project design features, the proposed project would not contribute to a significant cumulative greenhouse gas emissions impact.

7.1.10 Hazards and Hazardous Materials

As discussed in Section 5.8, Hazards and Hazardous Materials, the project site is on hazardous materials database listings due to the previous use of the Reclamation parcel as an aggregate mining site. Extensive assessment and remediation activities, including groundwater monitoring, soil excavation, and direct injection activities, have been conducted under regulatory oversight. The on-going remedial work is nearly complete and the Reclamation parcel "closure" by the lead regulatory agency, San Diego County DEH, for the project site is anticipated to occur in late 2012. Upon completion of the remedial activities, the site is expected to support residential land development, as presently planned.

The proposed project and the related projects would require emergency planning for natural or manmade disasters that may occur. Evacuation and emergency routes can be blocked by proposed roadway projects and construction activities that extend into the street. As required, compliance with standards related to vehicular access would ensure access to individual parcels is maintained at all times, detours are established, and required temporary traffic control plans are implemented. Impacts would be temporary and insignificant.

All projects are required to comply with state and federal regulations hazardous materials use. Also, ICAPCD and the California Environmental Protection Agency (Cal-EPA) have rules in place for asbestos and lead base paint abatement. Impacts related to hazards and hazardous materials from other related projects would be determined by site-specific hazardous studies. Phase 1 ESAs are typically required and

each project would handle it on a case-by-case basis. The project also includes fuel modification zones that would reduce fire risk on the project site, where development interfaces with natural slope conditions.

Enforcement of state, county, and local hazardous material regulations would reduce significant public health hazards to a level less than significant. Thus, implementation of the proposed project would not result in a significant cumulative hazards and hazardous materials impact.

7.1.11 Hydrology and Water Quality

Development of cumulative projects has the potential to increase the amount of erosion due to the alteration of drainage patterns and increased amounts of impervious surfaces. The hydrology analysis and storm water management requirements for the project site take into consideration the contribution of increased flows and water quality conditions as a result of cumulative development within the watershed in which the project site is located. Implementation of Mitigation Measures WQ-1 and WQ-2, as well as proposed project drainage control and hydromodification features identified in Section 5.9, Hydrology and Water Quality, will reduce impacts to a level less than significant. Cumulative projects will be subject to the same local, state, and federal regulations with respect to hydrology and water quality, and appropriate best management practices will be implemented to ensure impacts are reduced to less than significant. Also, improvements identified in the City's Master Drainage Plan would adequately control hydrology within the watershed. Regional pollution control facilities, including the proposed on-site water quality facilities will ensure that there are no significant cumulative impacts associated with water quality/hydrology.

7.1.12 Land Use and Planning

None of the cumulatively considered projects will result in the physical division of, or create barriers to, an established community, as they are all in areas that are currently undeveloped, or will result in complementary infill development. Therefore, the cumulative effects of the proposed project and the other projects that are being considered on the physical division of an established community would be less than significant.

The majority of the other projects being considered for cumulative impacts will not conflict with the City of Carlsbad General Plan. Achievement of orderly growth will be dependent upon development in the future occurring in a manner consistent with the City's General Plan, Growth Management Plan, and development regulations. Because the City has adopted these plans, and will continue to implement these plans, which will, in turn, avoid significant land use impacts, no cumulative impact will occur. The proposed development has been determined to be compatible with the existing surrounding land uses as well as approved and anticipated land uses. In addition, the analysis in Section 5.10, Land Use, of this EIR has determined that no significant project impact would occur to existing land use plans and policies, including the Carlsbad General Plan, Carlsbad HMP, and specific regulatory and environmental documents adopted by the City. The project-level land use impact is considered less than significant. Therefore, the project will not contribute to a significant cumulative impact to land use. No significant cumulative impact to land use will occur.

7.1.13 Noise

Roadway noise levels will generally increase as development occurs through the City's projected buildout. Cumulative buildout will increase the traffic-generated noise on surrounding roadways and other types of noise typically associated with urban uses will also increase.

The existing noise levels and reference distances to the 60 A-weighted decibel (dBA) Community Noise Equivalent Level (CNEL) contours for the roadways in the vicinity of the project site are given in Table 5.11-2 for the Existing Scenario in Section 5.11, Noise. The near term cumulative noise conditions are provided in Table 7-2. No noise barriers or topography that may affect noise levels were incorporated in the calculations.

Table 7-2. Existing + Near Term + Project Noise Levels

Roadway Segment	ADT[1]	Vehicle Speeds[1] (MPH)	Noise Level at 50 feet (dBA CNEL)	60 dBA CNEL Contour Distance (feet)
El Camino Real - Via Las Rosas to Vista Way	39,900	45	74.2	441
El Camino Real - Vista Way to SR-78 WB Ramps	57,400	45	75.8	562
College Blvd - Barnard Dr. to Vista Way	40,000	45	74.2	442
College Blvd - Vista Way to Plaza Dr.	51,000	45	75.3	520
College Blvd - Plaza Dr. to Marron Rd.	42,100	45	74.4	457
College Blvd - Marron Rd. to South City Limit	29,200	35	70	232
Vista Way - Jefferson St. to El Camino Real	15,800	35	67.3	154
Vista Way - El Camino Real to Rancho Del Oro Rd.	23,000	35	68.9	197
Vista Way - Rancho Del Oro Rd. to College Blvd.	22,100	35	68.8	192
Vista Way - College Blvd. to SR-78 WB Ramps	32,700	35	70.5	250
Vista Way - SR-78 WB Ramps to Thunder Dr.	19,200	35	68.2	175
Marron Rd./Lake Blvd - Driveway to College Blvd.	20,500	30	66.9	145
Marron Rd./Lake Blvd - College Blvd. to Thunder Dr.	14,600	30	65.4	115
Marron Rd./Lake Blvd - Thunder Dr. to Sundown Lane	15,500	30	65.7	120
Haymar Dr./Plaza Dr. - Driveway to College Blvd	4,000	30	59.8	49
Haymar Dr./Plaza Dr. - College Blvd to SR-78 WB Ramps	24,100	30	67.6	161
Haymar Dr./Plaza Dr. - SR-78 WB Ramps to Thunder Dr.	12,300	30	64.7	103
Rancho Del Oro Rd. - Vista Way to Tournament Dr.	15,700	30	65.8	121

Source: Project Traffic study prepared by Urban Systems Associates 2012.
[1] Urban Systems Associates 2012.

The overall roadway segment noise levels will increase from 0.0 dBA CNEL to 4.2 dBA CNEL with the development of the project as shown in Table 7-3 below. The project plus cumulative projects will create a noise increase of more than 3 dBA CNEL on Haymar Drive/Plaza Drive between the project driveways to College Boulevard. This segment of road is comprised of commercial uses and no noise sensitive receptors are present. Additionally, the projected noise level is below 60 dBA CNEL. Therefore, the project's direct contributions to off-site roadway noise increases will not cause any significant impacts to any existing or future noise sensitive land uses. Note that the values given do not take into account the effect of any noise barriers, structures, or topography that may affect roadway noise levels. No cumulative noise impact is identified.

Table 7-3. Existing vs. Near Term + Project Noise Levels

Roadway Segment	Existing Noise at 50 feet (dBA CNEL)	Existing plus Project plus Near Term Noise Level at 50 feet (dBA CNEL)	Difference (dBA CNEL)
El Camino Real - Via Las Rosas to Vista Way	73.8	74.2	0.4
El Camino Real - Vista Way to SR-78 WB Ramps	75.5	75.8	0.3
College Blvd - Barnard Dr. to Vista Way	73.9	74.2	0.3
College Blvd - Vista Way to Plaza Dr.	74.7	75.3	0.6
College Blvd - Plaza Dr. to Marron Rd.	73.8	74.4	0.6
College Blvd - Marron Rd. to South City Limit	69.2	70	0.8
Vista Way - Jefferson St. to El Camino Real	67.3	67.3	0
Vista Way - El Camino Real to Rancho Del Oro Rd.	67.2	68.9	1.7
Vista Way - Rancho Del Oro Rd. to College Blvd.	68.4	68.8	0.4
Vista Way - College Blvd. to SR-78 WB Ramps	69.8	70.5	0.7
Vista Way - SR-78 WB Ramps to Thunder Dr.	67.4	68.2	0.8
Marron Rd./Lake Blvd - Driveway to College Blvd.	66.1	66.9	0.8
Marron Rd./Lake Blvd - College Blvd. to Thunder Dr.	65.2	65.4	0.2
Marron Rd./Lake Blvd - Thunder Dr. to Sundown Lane	65.5	65.7	0.2
Haymar Dr./Plaza Dr. - Driveway to College Blvd	55.6	59.8	4.2
Haymar Dr./Plaza Dr. - College Blvd to SR-78 WB Ramps	67.2	67.6	0.4
Haymar Dr./Plaza Dr. - SR-78 WB Ramps to Thunder Dr.	64.6	64.7	0.1
Rancho Del Oro Rd. - Vista Way to Tournament Dr.	65.2	65.8	0.6

Source: Project Traffic study prepared by Urban Systems Associates 2012.

7.1.14 Population and Housing

The proposed project would construct 656 multi-family residential units, park space, open areas, pedestrian linkages, community facilities, and streets and parkways. Anticipated buildout of the proposed project would result in a population increase of approximately 1,541. Based on 2010 Federal Census data, the estimated population in Carlsbad is 105,328 with approximately 44,673 total existing households. The project would result in a 1.46 percent increase in population. The population growth associated with the proposed project is within projected population levels as contemplated in the City's Growth Management Plan.

As identified in Table 7-1, there are 19 other projects that are in the planning process or under construction in the City of Carlsbad. The cumulative effects of the proposed project on population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) would not be substantial. The contribution of housing and commercial/industrial development that the cumulative projects would add to the City and surrounding areas is considered a beneficial impact due to the increasing demand for housing and jobs in the region. Therefore, impacts are determined to be less than significant.

The cumulative effects of the proposed project and the other projects that are being considered for the displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere are less than significant.

The cumulative effects of the proposed project and the other projects that are being considered for the displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere are less than significant. The majority of the land that is proposed for development is vacant, and the cumulative projects would provide adequate housing for any people who are potentially displaced.

7.1.15 Public Services and Utilities and Service Systems

Cumulative development will increase the population of the City, resulting in an increased demand on public services and utilities. However, the City of Carlsbad has established the requirements for preparation of, and amendments to, the LFMP as part of the City's Growth Management Program in order to anticipate and prepare for this future growth and any potential strain on services. Conformance with and periodic review of the LFMP for each respective zone will ensure the adequate provision of public services in accordance with the City's Growth Management Plan. Therefore, no significant cumulative impact to public services and utilities will occur.

7.1.16 Transportation and Traffic

The proposed project traffic impacts and cumulative traffic impacts are evaluated in Section 5.14, Transportation and Traffic of this EIR. The cumulative condition impacts from other approved and reasonably feasible pending projects that are expected to influence the study area in the near-term are evaluated in Section 5.14. Other projects in Oceanside and Carlsbad considered to be adding traffic in the near-term before or at approximately the same time as the Quarry Creek Master Plan are listed below:

City of Oceanside

- El Corazon Specific Plan (Phase 1A, 1D, 1E, and 1F; 7,960 ADT).
- Tri-City Medical Office building (60,000 SF; 3,000 ADT).

City of Carlsbad

- Plaza Camino Real Westfield Shopping Center Revitalization Project (5,186 ADT from vacant leasable space; 1,240 ADT from new space).
- Sage Creek High School (Phase I; 1,500 students; 1,950 ADT).
- Robertson Ranch (1,162 du; 10.0 AC. Commercial; 13 AC. Park; 66.0 KSF Office; 17,800 ADT).
- Holly Springs Catarini (239 du; 2,250 ADT).
- Dos Colinas (309 retirement du; 29 du affordable housing; 1,340 ADT).
- Palomar Commons (16.6-acre Community Shopping Center; 12,370 ADT).
- La Costa Town Square (284,000 SF Community Shopping Center; 198 du; 55,000 S.F. Office; 25,516 ADT).

Figure 6-1 of the Traffic Impact Analysis (Appendix P of this EIR) shows the location of the cumulative projects.

Roadway Segments

Table 5.14-13 in Section 5.14 of this EIR shows the roadway segments within Oceanside with cumulative projects added. Table 5.14-13 shows that all segments evaluated within Oceanside would operate acceptably with cumulative projects added, except at the following segments:

- El Camino Real between Vista Way and SR-78 Westbound Ramps, at LOS "E;"
- College Boulevard between Vista Way and Plaza Drive, at LOS "E;"
- Vista Way between College Boulevard and the SR-78 Westbound Ramps, at LOS "F;"
- Lake Boulevard between Thunder Drive and Sundown Lane, at LOS "F."

Intersections

There are five intersections within the City of Oceanside that have planned but mostly unfunded improvements for Near-Term conditions as a result of previous traffic studies. The City of Oceanside has requested these improvements be assumed for Near-Term and Buildout conditions:

- El Camino Real/Vista Way: On El Camino Real, add a northbound to eastbound right-turn-only lane;
- College Boulevard/Vista Way: On College Boulevard add a second northbound to eastbound right-turn-only lane (a condition of approval for the Tri-City Medical Office); on Vista Way add a westbound to northbound right-turn-only lane;
- College Boulevard/Haymar Drive – Plaza Drive: On College Boulevard, add a northbound to eastbound right-turn-only lane;
- College Boulevard/Marron Road – Lake Boulevard: On College Boulevard, add a second northbound to eastbound right-turn-only lane;
- College Boulevard/Barnard Drive – Waring Road: On College Boulevard in the northbound direction, convert the dedicated right-turn-only lane to a third northbound shared-through/right turn lane. Widen the far side of the intersection to accept the third northbound shared through-right turn lane.

Table 5.14-15 in Section 5.14 of this EIR includes intersection levels of service for the Near-Term without Project conditions, but without the planned improvements. As indicated Table 5.14-15, all evaluated intersections would operate acceptably under this condition, with existing lane configurations, except at the El Camino Real/Vista Way intersection at LOS "E" during the PM peak hour.

Table 6-3A of the Traffic Impact Analysis (Appendix P) shows the five intersections that have planned improvements by the City of Oceanside. As shown in Table 6-3A, adding a northbound right-turn-only lane on El Camino Real to eastbound Vista Way would mitigate the LOS in the PM peak hour to "D."

State Route 78 Mainlines

The cumulative projects' traffic volumes were added to existing State Route 78 (SR-78) freeway volumes. The mainline peak hour levels of service are included in Table 5.14-16 in Section 5.14 of this EIR. Two freeway segments would operate at LOS "E" in the Near-Term without Project: El Camino Real to Rancho Del Oro Road and Rancho Del Oro Road to College Boulevard.

Near-Term with Project

Roadway Segments

Table 5.14-17 in Section 5.14 of this EIR shows the roadway segments within Oceanside with project traffic added to Near-Term conditions. As shown in Table 5.14-17, all segments evaluated within Oceanside would operate acceptably with project traffic added except at the following four locations:

El Camino Real: between Vista Way and SR-78 Westbound Ramps

Level of Service: This segment would operate at LOS "E" in the Near-Term with Project.

Significance: The project change in volume to capacity ratio is not greater than two percent (0.02); therefore, the project's cumulative impact would be less than significant.

Mitigation: No project mitigation is required.

College Boulevard: between Vista Way and Plaza Drive

Level of Service: This roadway segment is at LOS "F" in the Near-Term with Project.

Significance: The change in volume to capacity ratio is greater than two percent (0.02); therefore, the project has a significant cumulative impact to this segment.

Mitigation: According to the City of Oceanside Circulation Element Update Final EIR, physical improvements to add lanes are infeasible; therefore the Final EIR recommended reclassification of this segment from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impact.

The reclassification and segment changes are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not have an adopted program to construct roadway improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that this impacted roadway segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable.

Significance After Mitigation. No feasible mitigation measure has been identified. Due to the infeasibility of physical improvements, project impacts to this segment of College Boulevard will remain significant and unmitigated.

Vista Way: between College Boulevard and the SR-78 Westbound Ramps

Level of Service: This roadway segment would operate at LOS "E" under the Near-Term with Project.

Significance: The project change in volume to capacity ratio is greater than two percent (0.02); therefore, the project would have a significant project cumulative impact to this segment.

Mitigation: As mentioned previously, the Oceanside Circulation Element Update Final EIR recommended providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lane at College Boulevard/Vista Way intersection by restriping the existing lanes. However, although the improvements would improve peak hour operations, Vista Way would still operate at a deficient LOS. The dedicated westbound left-turn-only lane is a future unfunded project, while restriping is a condition of approval for the Tri-City Medical Office project.

The roadway segment changes/alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not have an adopted program to construct roadway improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that this impacted roadway segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable.

Significance After Mitigation. No feasible mitigation measure has been identified. Due to the infeasibility of physical improvements, project impacts to this segment of Vista Way will remain significant and unmitigated.

Lake Boulevard: between Thunder Drive and Sundown Lane

Level of Service: This segment decreases from LOS "E" to "F" under Near-Term with Project.

Significance: Although the LOS decreases, the change in volume to capacity ratio is less than two percent (0.02) therefore; the project would not have a significant cumulative impact to this segment.

Mitigation: No project mitigation is required.

No other segments evaluated within the City of Oceanside would be significantly impacted by project traffic for the Near-Term with Project condition. Table 5.14-18 in Section 5.14 of this EIR shows the project only AM and PM peak hour traffic volumes added to Near-Term without Project conditions on roadway segments within Carlsbad between intersections. As shown Table 5.14-18, all street segments within the Carlsbad study area would operate acceptably with project traffic added for the Near-Term with Project condition. The project would have less than significant cumulative impacts to segments within Carlsbad.

Intersections

Table 5.14-19 in Section 5.14 of this EIR shows the results of the intersection LOS evaluation for the Near-Term with Project conditions. The LOS without the project is also shown for comparison. Within both Oceanside and Carlsbad, a significant impact would occur if the intersection is at LOS "E" or "F," and the increase in delay resulting from the project is more than two seconds. All intersections were evaluated with existing lane configurations. As shown in Table 5.14-19, all evaluated intersections except one maintain an acceptable LOS (i.e., LOS D or better).

El Camino Real/Vista Way

Level of Service: This intersection would operate at LOS "E" without or with project traffic added.

Significance: Since the change in delay resulting from the project is less than two seconds, the project would have a less than significant cumulative impact on this intersection

Mitigation: No project mitigation is required.

Table 7-3-A of the Traffic Impact Analysis (Appendix P) shows the five intersections within Oceanside that have planned improvements for Near-Term and Buildout conditions. The El Camino Real/Vista Way intersection would operate acceptably with the planned but unfunded Oceanside improvement of adding a northbound right-turn-only lane on El Camino Real.

State Route-78 Mainlines

The project traffic volumes were added to Near-Term without Project SR-78 average daily traffic volumes and are included in Table 5.14-20 in Section 5.14 of this EIR. The Near-Term with and without Project freeway volumes, LOS comparison, and volume to capacity ratios are shown in Table 5.14-20. As shown in Table 5.14-20, the segments at LOS "E" have volume to capacity increases of less than one percent (0.01); therefore, the project has less than significant cumulative impacts to SR-78 mainlines.

Buildout Alternatives 1 and 2

The SANDAG Series 11 Combined North County Traffic Model was used for each alternative to predict Buildout average daily traffic volumes. A select zone plot of project only traffic distribution was also prepared to provide an indication of project only traffic distribution percentages.

Buildout Alternative 1 Roadway Segments

Table 5.14-21 in Section 5.14 of this EIR shows the Buildout Alternative 1 average daily traffic volumes without and with project traffic in the City of Oceanside. As shown in Table 5.14-21, all segments evaluated within Oceanside would operate acceptably with project traffic added except at four locations. These segments would be at LOS F without or with project traffic. The project would have a significant cumulative impact at only two of these segments. A peak hour segment analysis was conducted for the deficiently operating College Boulevard corridor and the results are shown in Table 8-1-A of the Traffic Impact Analysis (Appendix P). This analysis indicates one additional segment of this corridor would have a significant project impact. These three segments are listed below:

- College Boulevard between Vista Way and Plaza Drive. The change in volume to capacity ratio is greater than two percent (0.02);
- College Boulevard between Marron Road and the southern City limit. The change in volume to capacity ratio is greater than two percent (0.02).; and
- College Boulevard (Plaza Drive to Marron Road – Lake Boulevard). The average peak hour travel speed decreases by more than one mile per hour with project traffic added, which indicates a significant impact.

Mitigation: As mentioned previously, physical improvements to add lanes are infeasible; therefore the City of Oceanside Circulation Element Update Final EIR recommended reclassification of this segment from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impact.

The reclassification and segment changes are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not have an adopted program to construct roadway improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that this impacted roadway segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable.

Significance After Mitigation: No feasible mitigation measure has been identified. Due to the infeasibility of physical improvements, project impacts to these segments of College Boulevard will remain significant and unmitigated.

Vista Way, between College Boulevard ad the SR-78 westbound ramps would operate at a LOS "F" under Buildout Alternative 1 conditions without and with project traffic added. However, the project change in volume to capacity ratio is not greater than two seconds; therefore, project impacts are less than significant. A peak hour segment analysis also indicates the project impact is less than significant on this segment since the addition of project traffic does not reduce the segment travel speed by more than one mile per hour, as indicated in Table 8-1-A of the Traffic Impact Analysis (Appendix P). No other segments evaluated within the City of Oceanside would be significantly impacted by project traffic for the Buildout Alternative 1 condition.

Project only AM and PM peak hour traffic volumes were added to Buildout Alternative 1 peak hour traffic volumes between study area intersections within Carlsbad. The results are shown in Table 5.14-22 in Section 5.14 of this EIR. As shown in Table 5.14-22, all evaluated street segments within Carlsbad would operate acceptably with project traffic added to Buildout Alternative 1 peak hour volumes on roadway segments between intersections.

Buildout Alternative 1 Intersections

The Oceanside Circulation Element Update April 2012 Final Program EIR includes peak hour volumes at intersections for their base condition, which used the same SANDAG Series 11 Combined North County Model as the base forecast that was used for the Buildout Alternative 1 forecast volumes, but without the full Quarry Creek Master Plan included. The Final EIR was used to prepare the peak hour volumes at intersections within the study area, with adjustments to add project only peak hour traffic.

Table 5.14-23 of this EIR compares the peak hour intersection levels of service without and with project traffic added to Buildout Alternative 1 peak hour volumes. Also included in Table 5.14-23 is the change in control delay at each intersection due to the addition of project traffic. The intersection lane configurations for the intersections listed in Table 5.14-23 are the same as for existing conditions and do not include planned mitigation by the City of Oceanside as a result of other traffic studies. Only two intersections are expected to operate at LOS "E" under Buildout Alternative 1 conditions: El Camino Real/Vista Way and College Boulevard/Marron Road/Lake Boulevard.

El Camino Real/Vista Way

Level of Service: This intersection is at LOS "E" during the PM peak hour without or with project traffic.

Significance: Although the LOS is deficient, the change in average control delay is not greater than two seconds; therefore, the project impacts are less than significant.

Mitigation: No project mitigation is required.

Table 8-3-A of the Traffic Impact Analysis (Appendix P) lists the five intersections with planned but mostly unfunded improvements by the City of Oceanside, including the El Camino Real/Vista Way intersection. The addition of a northbound right-turn-only lane on College Boulevard to eastbound Vista Way would mitigate the deficient LOS.

College Boulevard/Marron Road/Lake Boulevard

Level of Service: This intersection is at LOS "E" during the PM peak hour without or with project traffic.

Significance: The change in average control delay with the addition of project traffic is greater than two percent (0.02); therefore, the project would have a significant cumulative impact.

Mitigation: The planned but unfunded mitigation at this location, as identified in the Oceanside Circulation Element Update FEIR, is the addition of a second northbound right-turn-only lane to eastbound Lake Boulevard. As shown in Table 8-3-A of the Traffic Impact Analysis, the addition of the second right turn only lane provides mitigation for the deficient operation at this location.

The changes are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not have an adopted program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that this impacted intersection is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable.

Significance After Mitigation: No feasible mitigation measure has been identified. Due to the infeasibility of physical improvements, project impacts to this intersection will remain significant and unmitigated.

State Route 78 Mainlines

The project traffic volumes were added to Buildout Alternative 1 SR 78 average daily traffic volumes and are shown in Table 5.14-24 in Section 5.14 of this EIR. Table 5.14-24 shows freeway volumes without and with project traffic. Table 5.14-24 table also compares levels of service and volume to capacity ratios; and indicates if the project has or has not a significant freeway impact. As shown in Table 5.14-24, segments at LOS "E" or "F" have volume to capacity ratio increases of less than one percent (0.01); therefore, the project has less than significant impacts to SR-78 mainlines.

Buildout Alternative 2 Roadway Segments

The land uses for the Quarry Creek Master Plan remain the same for Alternative 2 as for Alternative 1. The street network for Alternative 2 is the same as Alternative 1 except for the deletion of Marron Road

between the Quarry Creek Master Plan west boundary and the existing extension east of El Camino Real in Carlsbad. The Rancho Del Oro/SR-78 interchange is included, but the Rancho Del Oro extension to the south of the interchange is deleted.

Table 5.14-25 in Section 5.14 of this EIR compares the Buildout Alternative 2 average daily traffic volumes without and with project traffic. As shown in Table 5.14-25, all segments evaluated within Oceanside would operate acceptably with project traffic added except at four locations. As with Alternative 1, these segments would be at LOS F without or with project traffic. The project would have a direct significant impact at only two of these segments, the same as for the Alternative 1 analysis: College Boulevard between Vista Way and Plaza Drive and College Boulevard between Marron Road and the southern City limit. A peak hour segment analysis was conducted for the deficiently operating College Boulevard corridor and the results are shown in Table 9-1-A of the Traffic Impact Analysis (Appendix P). This analysis indicates one additional segment of this corridor would have a direct significant project impact: College Boulevard (Plaza Drive to Marron Road–Lake Boulevard). These roadway segments and mitigation are listed below.

- College Boulevard between Vista Way and Plaza Drive. The change in volume to capacity ratio is greater than two percent (0.02);
- College Boulevard between Marron Road and the southern City limit. The change in volume to capacity ration is greater than two percent (0.02); and
- College Boulevard (Plaza Drive to Marron Road – Lake Boulevard). The average travel speed decreases by more than one mile per hour with project added, which indicates a significant impact.

Mitigation: As mentioned previously, physical improvements to add lanes are infeasible; therefore the City of Oceanside Circulation Element Update Final EIR recommended reclassification of this segment from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impact.

The reclassification and segment changes are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not have an adopted program to construct roadway improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that this impacted roadway segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable.

Significance After Mitigation. No feasible mitigation measure has been identified. Due to the infeasibility of physical improvements, project impacts to these segments of College Boulevard will remain significant and unmitigated.
Under cumulative Buildout Alternative 2 conditions, one additional roadway segment (Vista Way, between College Boulevard and the SR-78 westbound ramps) would have cumulative impacts without and with project traffic added.

Vista Way: Between College Boulevard and the SR-78 Westbound Ramps

Level of Service: This segment is at LOS "F" without or with project traffic added.

Significance: The project change in volume to capacity ratio is greater than two percent (0.02); therefore, the project results in a significant cumulative impact.

Mitigation: As mentioned previously, the Oceanside Circulation Element Update Final EIR recommended providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lane at College Boulevard/Vista Way intersection by restriping the existing lanes. However, although the improvements would improve peak hour operations, Vista Way would still operate at a deficient LOS.

The roadway segment changes/alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not have an adopted program to construct roadway improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that this impacted roadway segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable.

Significance After Mitigation. No feasible mitigation measure has been identified. Due to the infeasibility of physical improvements, project impacts to this segment of Vista Way will remain significant and unmitigable.

Project only AM and PM peak hour traffic volumes were added to Buildout Alternative 2 peak hour traffic volumes between study area intersections within Carlsbad. The results are shown in Table 5.14-26 in Section 5.14 of this EIR. As shown in Table 5.14-26, all evaluated street segments within Carlsbad would operate acceptably, and project impacts would be less than significant to Carlsbad roadway segments.

Buildout Alternative 2 Intersections

The intersection peak hour volumes used for Alternative 1 were modified to account for the project only redistribution without the Marron Road extension.

Table 5.14-27 in Section5.14 of this EIR compares the peak hour intersection levels of service without and with project traffic added to Buildout Alternative 2 peak hour volumes. A change in average control delay is also included in Table 5.14-27, showing the effect of project traffic. The intersection lane configurations for the intersections listed in Table 5.14-27 are the same as for existing conditions and do not include the planned mostly unfunded mitigation by the City of Oceanside as a result of other traffic studies.

Only two intersections are expected to operate at LOS "E" under Buildout Alternative 1 conditions. Table 9-3-A of the Traffic Impact Analysis (Appendix P) lists the five intersections with planned but mostly unfunded improvements by the City of Oceanside, including the El Camino Real/Vista Way intersection. The addition of a northbound right-turn-only lane on College Boulevard to eastbound Vista Way would mitigate the deficient LOS at this location.

El Camino Real/Vista Way

Level of Service: This intersection is at LOS "E" during the PM peak hour without or with project traffic.

Significance: The change in average control delay is not greater than two seconds; therefore, project impacts are less than significant.

Mitigation: No project mitigation is required.

College Boulevard/Marron Road/Lake Boulevard

Level of Service: This intersection is at LOS "E" during the PM peak hour without or with project traffic.

Significance: The change in average control delay with the addition of project traffic is greater than two percent (0.02) so that the project would have a significant cumulative impact.

Mitigation: The planned but unfunded mitigation at this location, as identified in the Oceanside Circulation Element Update FEIR, is the addition of a second northbound right-turn-only lane to eastbound Lake Boulevard. As shown in Table 9-3-A the addition of the second right turn only lane provides mitigation for the deficient operation at this location. Mitigation Measure T-5 would require payment of fair share contribution towards the project improvements.

The changes/alterations are within the responsibility and jurisdiction of the City of Oceanside. However, the City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the intersection is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable.

Significance after Mitigation: The addition of the second right turn only lane provides mitigation for the deficient operation at this location. However, the City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the intersection is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts remain significant and unmitigable.

Buildout Alternative 2 project traffic effects at all other study area intersections would be less than significant.

State Route 78 Mainlines

The project traffic volumes were added to Buildout Alternative 2 SR-78 average daily traffic volumes and are shown in Table 5.14-28 in Section 5.14 or this EIR. Table 5.14-28 table shows freeway volumes without and with project traffic. Table 5.14-28 also compares levels if service and volume to capacity ratios, and indicates if the project has or has not a significant freeway impact. As shown in Table 5.14-28 of this EIR, segments at LOS 'E" or "F" have volume to capacity ratio increases of less than one percent (0.01); therefore, the project has less than significant impacts to SR-78 mainlines.

Conclusion

A significant impact has been identified for the Near-Term with Project and for the Buildout conditions of Alternatives 1 and 2 to the following two roadway segments in the City of Oceanside:

- College Boulevard: Between Vista Way and Plaza Drive; and
- Vista Way: Between College Boulevard and SR 78 Westbound Ramps

Additionally, a significant impact has been identified in the Buildout Alternatives 1 and 2 conditions to the following two roadway segments and one intersection in the City of Oceanside:

- College Boulevard: Between Plaza Drive and Marron Road;
- College Boulevard: Between Vista Way and Plaza Drive;

- College Boulevard: Between Marron Road and the south City limit; and
- College Boulevard/Marron Road/Lake Boulevard Intersection.

Implementation of Mitigation Measure T-1 in Section 5.14 of this EIR will reduce the cumulative impact to College Boulevard between Vista Way and Plaza Drive to a level less than significant level; however, in the event that the City of Oceanside does not have a well-funded program or otherwise refuses to accept a fair share contribution for the College Boulevard roadway segment, then the segment will be considered cumulatively significant and unmitigated.

Implementation of Mitigation Measure T-2 in Section 5.14 of this EIR will reduce cumulative impacts to Vista Way between College Boulevard and SR 78 westbound ramps; however, the identified improvements would not fully mitigate the impact. The changes/alterations are within the responsibility and jurisdiction of the City of Oceanside. In the event that the City of Oceanside does not have a well-funded program or otherwise refuses to accept a fair share contribution for the Vista Way roadway segment, then the segment will be considered cumulatively significant and unmitigated.

Implementation of Mitigation Measure T-3 would reduce cumulative impacts to College Boulevard/Marron Road/Lake Boulevard Intersection. The changes/alterations are within the responsibility and jurisdiction of the City of Oceanside. In the event that the City of Oceanside does not have a well-funded program or otherwise refuses to accept a fair share contribution for the intersection, then the intersection will be considered cumulatively significant and unmitigated.

The Quarry Creek project has no direct or cumulative traffic impact within the City of Carlsbad; however, the project will pay traffic impact fees in accordance with City of Carlsbad's Municipal Code Chapter 18.42.

As explained in the preceding analysis and listed below, the project does have direct and cumulative impacts within the City of Oceanside. The changes or alterations required to mitigate the impact are within the responsibility and jurisdiction of the City of Oceanside. Such requirements should be adopted by the City of Oceanside. However, the City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segments and intersections are located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigated. See *CEQA Guidelines* Section 15091(a)(2).

Notwithstanding the above, and in accordance with the Oceanside General Plan, the applicant has indicated that it will voluntarily offer to enter into an agreement with the City of Oceanside in which it will offer to fund or construct the following creative measures to address the improvement of traffic conditions within the City of Oceanside at those locations where improvements are feasible. The total cost of these creative measures shall not exceed the amount that is equal to current Thoroughfare and Traffic Signal fees that would be paid by this project if it were located in the City of Oceanside jurisdiction.

The improvements that the applicant may fund or construct, in order of priority, are the following:

1. **Vista Way between College Boulevard and SR-78 westbound ramps.**

   Provide a westbound right turn lane and lengthen the westbound left turn lanes at College Boulevard and Vista Way intersection. Plans and right of way (if needed) shall be provided by the City of Oceanside.

2. **College Boulevard and Plaza Drive.**

   Construct a northbound right turn lane from College Boulevard to Plaza Drive. Plans and right of way (if needed) shall be provided by the City of Oceanside.

3. **College Boulevard and Lake Boulevard.**

   Design plans for a northbound right turn lane from College Boulevard to Lake Boulevard.

4. **Lake Boulevard between Thunder Drive and Sundown Lane.**

   Provide funding for the installation of a Driver Feedback Sign.

If the total cost of the creative measures identified above (including all design and construction costs, including but not limited to acquisition costs, construction costs, supervision and administration) is less than the total value of the current Thoroughfare and Traffic Signal fees that would be required to be paid as a result of this project, then the difference shall be paid to the City of Oceanside as an additional fair share contribution. Regardless of whether the project applicant and the City of Oceanside enter into an agreement for the creative measures listed above, the cumulative impacts identified in the City of Oceanside will remain significant and unmitigated.

7.2 GROWTH INDUCING IMPACTS

Discussion of growth-inducing impacts is required by the State *CEQA Guidelines* Section 15126.2(d). Growth inducement refers to the "ways in which a project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." This typically includes projects that will remove obstacles to population growth, for example, as a result of the provision of public services to undeveloped areas. It must not be assumed that growth in any area is necessarily beneficial or detrimental in its effect on the environment, or that it has an insignificant effect. Each project must be evaluated on its own merit.

The proposed project is consistent with the growth management projections for the northeast quadrant of the City, as the project will not result in an increase of the number of dwelling units and population above the level anticipated by the City's General Plan and Growth Management Ordinance. The LFMP process includes restrictions on the timing and phasing of development in relation to the provision of community services and infrastructure. The City's Growth Management Plan Policies, which are enforced in the LFMPs, would continue to monitor growth in the area to maintain adequate levels of service for the people living in Carlsbad. With the incorporation of the LFMP process and the City's Growth Management Plan policies, development cannot proceed until adequate infrastructure is financially guaranteed to meet demand. Implementation of the proposed project would not result in the alteration of growth patterns within the City from that anticipated in the adopted General Plan. Infrastructure does not currently exist on the project site, but will be developed as part of the proposed project in compliance with the LFMP. Infrastructure and proposed improvements include road, water, sewer, and utility improvements.

The jobs and housing created by the proposed project are anticipated to serve the existing population within the City limits. The project would provide temporary construction jobs. The short-term nature of the construction jobs is not anticipated to lead to significant long-term population growth in the region.

7.3 SIGNFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Development of the proposed project will result in the consumption of nonrenewable energy resources, which will have a significant irreversible effect on such resources. The proposed project will also result in the development of an urban use on a site that was previously utilized for mineral extraction (Reclamation Parcel). Once developed, reverting to a less urban use or open space is highly unlikely. Development of the project site will constrain future land use options.

Several irreversible commitments of limited resources would result from implementation of the proposed project. The resources include but are not limited to the following: lumber and other forest products; sand, gravel, and concrete; asphalt; petrochemical construction materials; steel, copper, and other metals; and water consumption.

7.4 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

Section 5.0 of this EIR contains the analysis of environmental impacts which identifies the impacts that would occur with implementation of the proposed project. Based on this analysis, significant, unmitigated direct, and cumulative traffic impacts have been identified that, because the City of Oceanside does not have a well-funded program or may otherwise refuse to accept a fair share contribution for the impacts identified to the roadway segments and intersection within Oceanside, impacts would remain unmitigated. This is considered an unavoidable impact of the project because only a significant reduction in proposed dwelling units could avoid this impact, which would be in conflict with the proposed project objectives.

7.5 EFFECTS FOUND NOT TO BE SIGNIFICANT

In accordance with Section 15128 of the *CEQA Guidelines*, an EIR must contain a statement briefly indicating the reasons that various potential significant effects of a project were determined not to be significant. Analysis of environmental impacts caused by the proposed project has been performed, and is contained in Section 5.0 of this EIR. The following impact areas were analyzed as part of the EIR and were found to be less than significant or were determined to be less than significant prior to preparation of the EIR.

- Agriculture and Forestry
- Land Use and Planning
- Population and Housing
- Public Services
- Utilities and Service Systems

Mineral resource was identified during the environmental review process as having no significant project-related impact and is therefore not addressed in the EIR. Mineral Resources is summarized below.

Mineral Resources

A portion of the project site was previously the source of a known mineral resource (hard rock quarry) that was regionally valuable. However, mining operations were terminated in 1995 because the mineral resources of the project site were considered to be realized after the course of 34 years of mining operations. No significant impacts on mineral resources are anticipated.

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